Monitoring Data Record

Project Title: B-3157 (Michael's Branch Site) COE Action ID: 200020843
WQC Number: 3467
Stream Name: Michael's Branch
City, County and other Location Information: Davidson County, Bridge #74 & #76 over SR 1242 and Michael's Branch and approaches on US 29/64/70 & I-85 Business.
Date Construction Completed: 9/5/07 Monitoring Year: (1) of 5
Ecoregion: 8 digit HUC unit 03040103
USGS Quad Name and Coordinates:
Rosgen Classification:
Length of Project: 876' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 8/15/08
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (**1**) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit States: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e., identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the Corps of Engineers, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the Corps of Engineers, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site:
10 photos were taken from 5 photo point locations
Dates reference photos have been taken at this site: 1/23/08, 8/15/08
Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference: A site map with photo point locations is included with this report.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):
There were dead plantings noted between the outlet end of the double barrel box culvert downstream to PP#4.

Estimated causes, and proposed/required remedial action: The area noted above will be replanted in 2009.

ADDITIONAL COMMENTS: Streambank reforestation included black willow, tag alder, water oak, sycamore, yellow poplar, and green ash. Other vegetation noted: red maple, sweetgum, cattails, *Juncus* sp., jewelweed, *Scripus* sp., tearthumb, lespedeza, woolgrass, and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

Michael's Branch has experienced several bankfull events since the last monitoring evaluation. These bankfull events have caused a crossvane below the double barrel box culvert to fail (photo attached @ the end of the photo sequence). Another crossvane downstream has some erosion at the end the right arm. NCDOT is planning to take remedial action as soon as possible. Other than these two areas the remaining portion of the stream relocation is stable.

Date 8/15/08	Upstream of PP#4	Downstream of PP#4	Station Number	Station Number	Station Number
Structure Type	Crossvane	Crossvane			
Is water piping through or around structure?	Water is piping under crossvane				
Head cut or down cut present?	Headcut				
Bank or scour erosion present?		Erosion @ the end of the right arm			
Other problems noted?					

Michael's Branch


Photo Point #1 (Upstream)


Photo Point #1 (Downstream)


Photo Point #2 (Upstream)


Photo Point #2 (Downstream)


Photo Point #3 (Upstream)


Photo Point #3 (Downstream)

Year 1 Summer – August 2008

Michael's Branch

Photo Point #4 (Upstream)

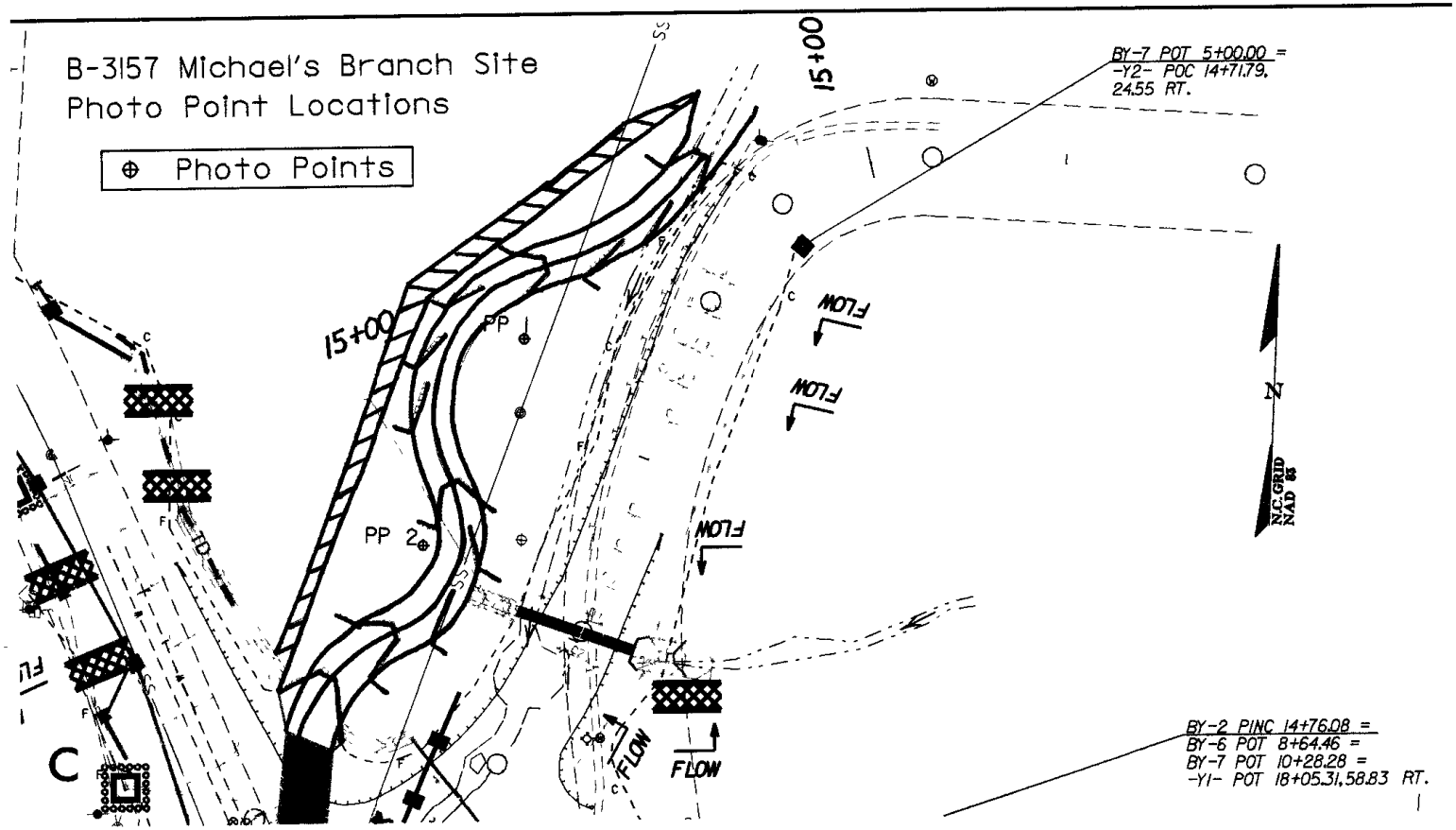
Photo Point #4 (Downstream)

Photo Point #5 (Upstream)

Photo Point #5 (Downstream)

(Crossvane failure upstream of PP#4)

Year 1 Summer – August 2008


B-3157 Michael's Branch Site
Photo Point Locations
⊕ Photo Points
15+00
15+00
PP
PP 2
FLOW
FLOW
FLOW
FLOW
FLOW
N
N.C. GRID
NAD 83
BY-7 POT 5+00.00 =
-Y2- POC 14+71.79,
24.55 RT.
BY-2 PINC 14+76.08 =
BY-6 POT 8+64.46 =
BY-7 POT 10+28.28 =
-Y1- POT 18+05.31, 58.83 RT.

B-3157 Michael's Branch Site
Photo Point Locations